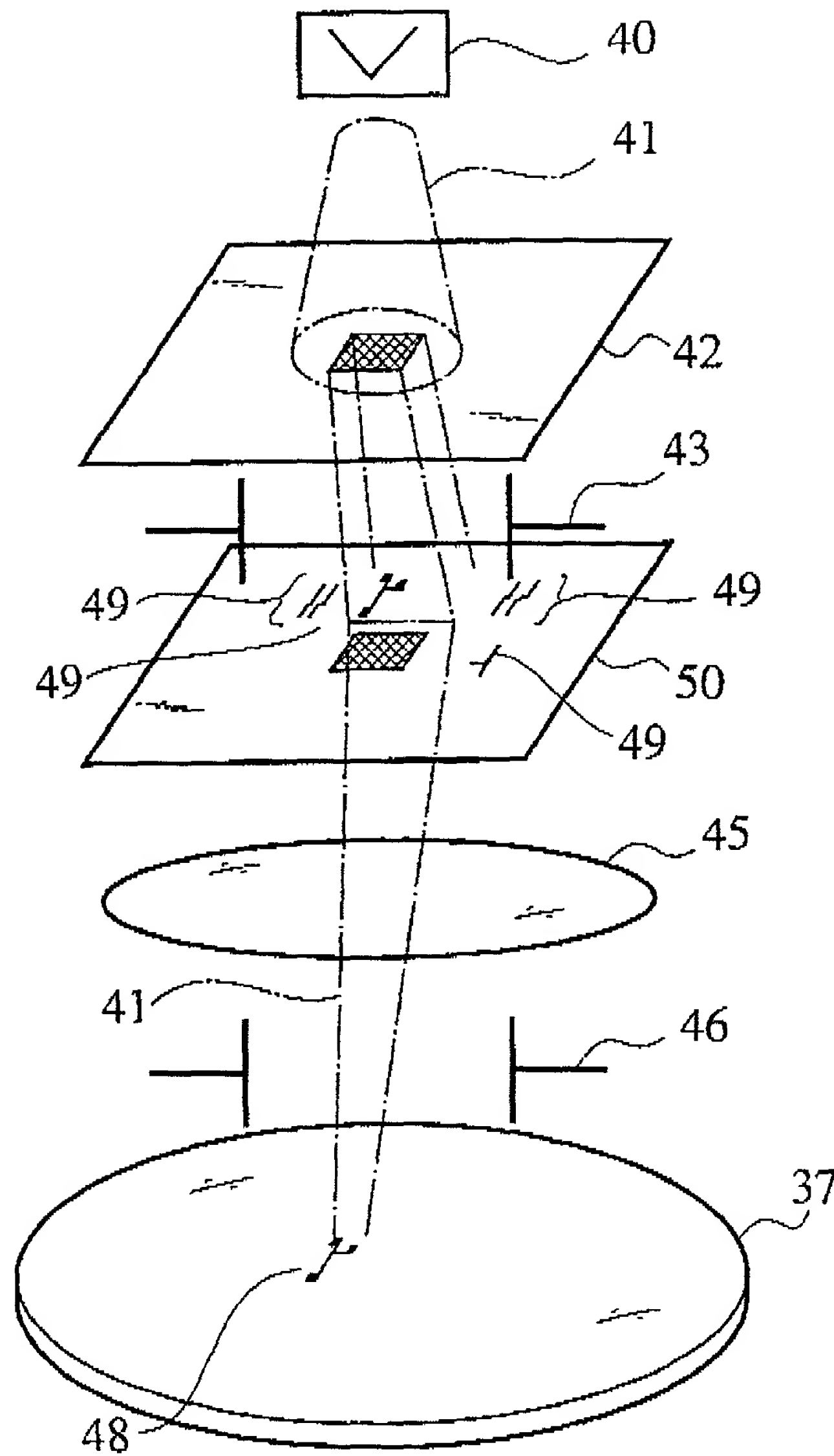


1/18

FIG. 1
PRIOR ART



2/18

FIG. 2
PRIOR ART

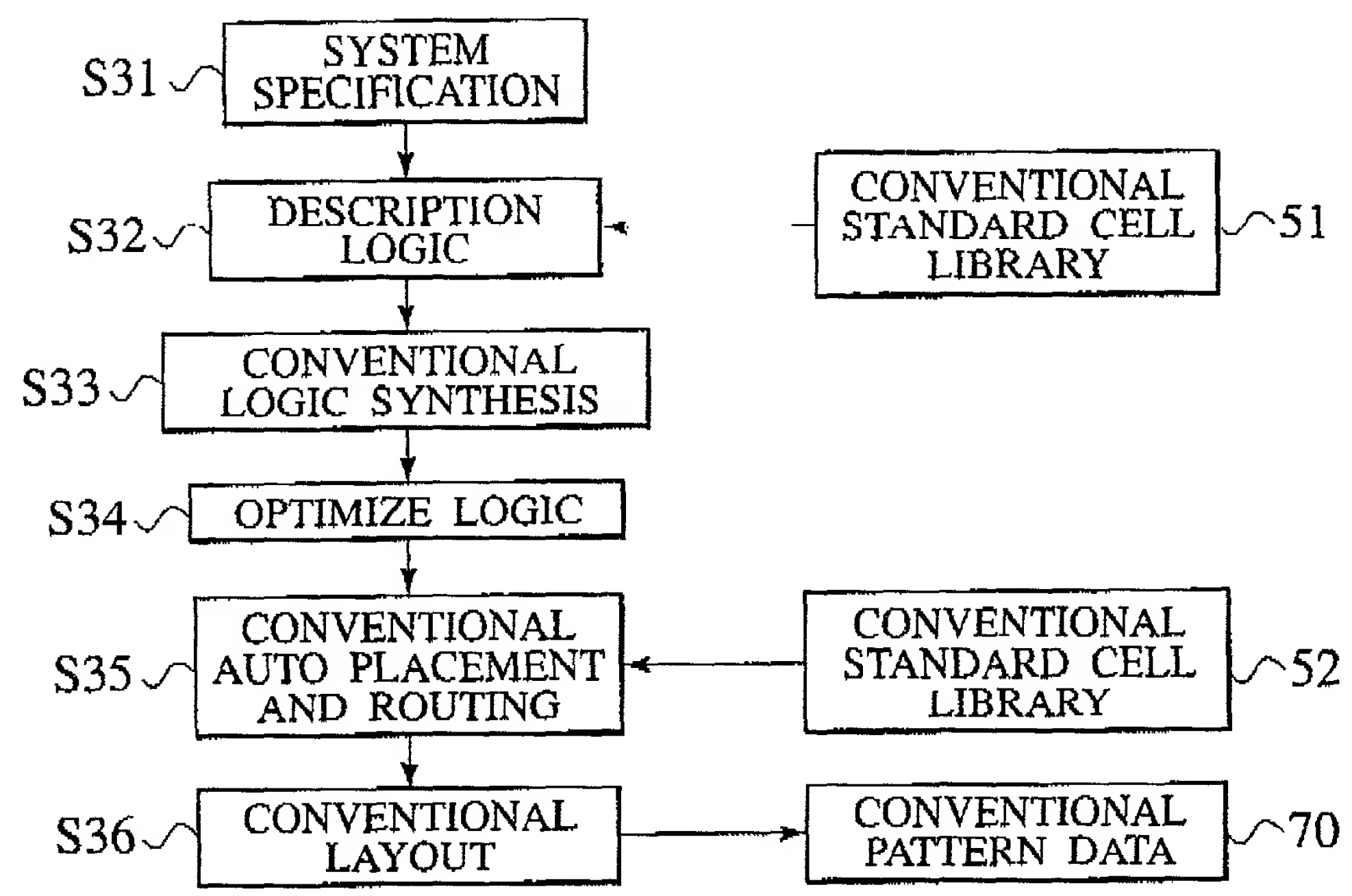
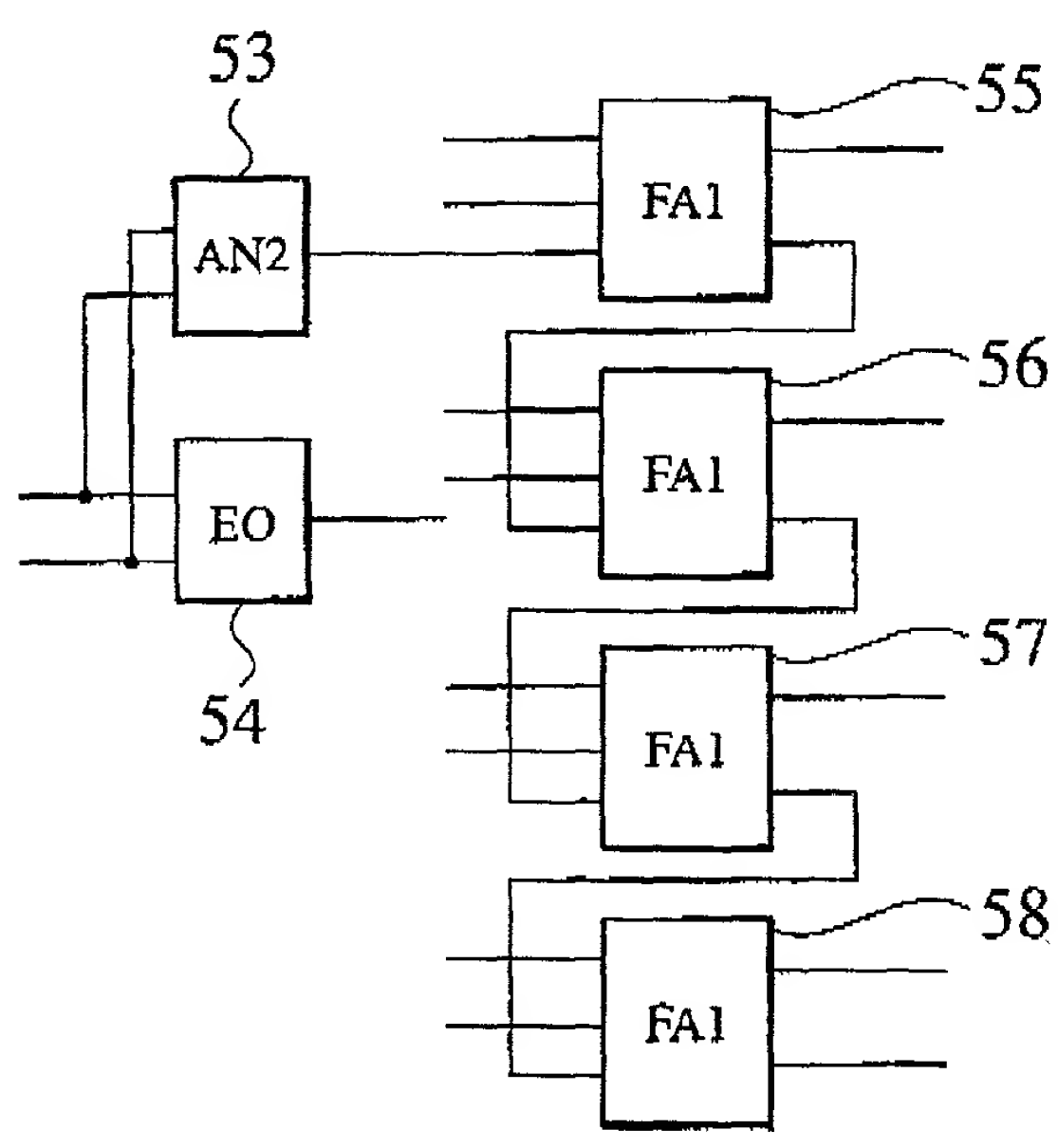


FIG. 3
PRIOR ART



3/18

FIG. 4A

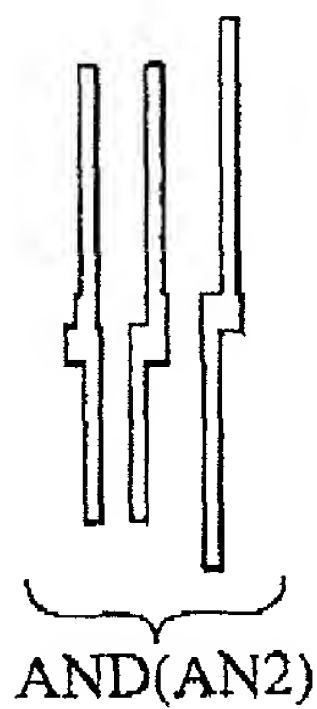


FIG. 4B

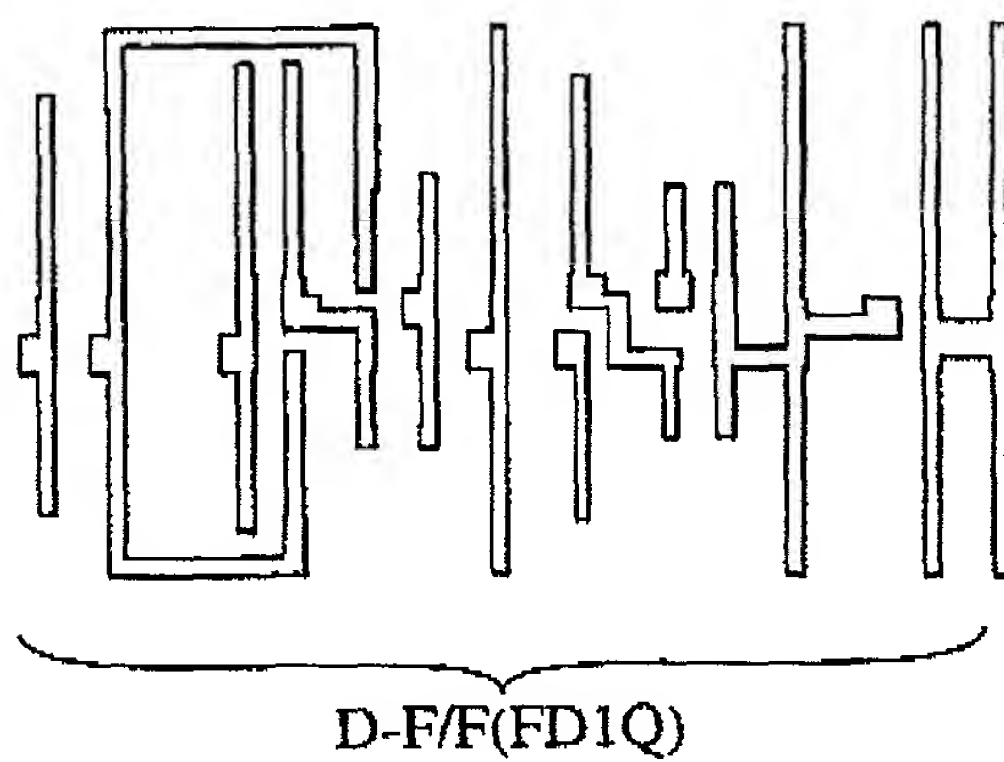
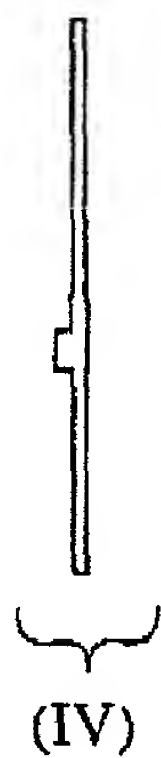


FIG. 4C



4/18

FIG. 5A
PRIOR ART

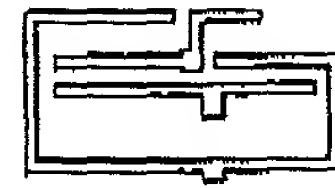
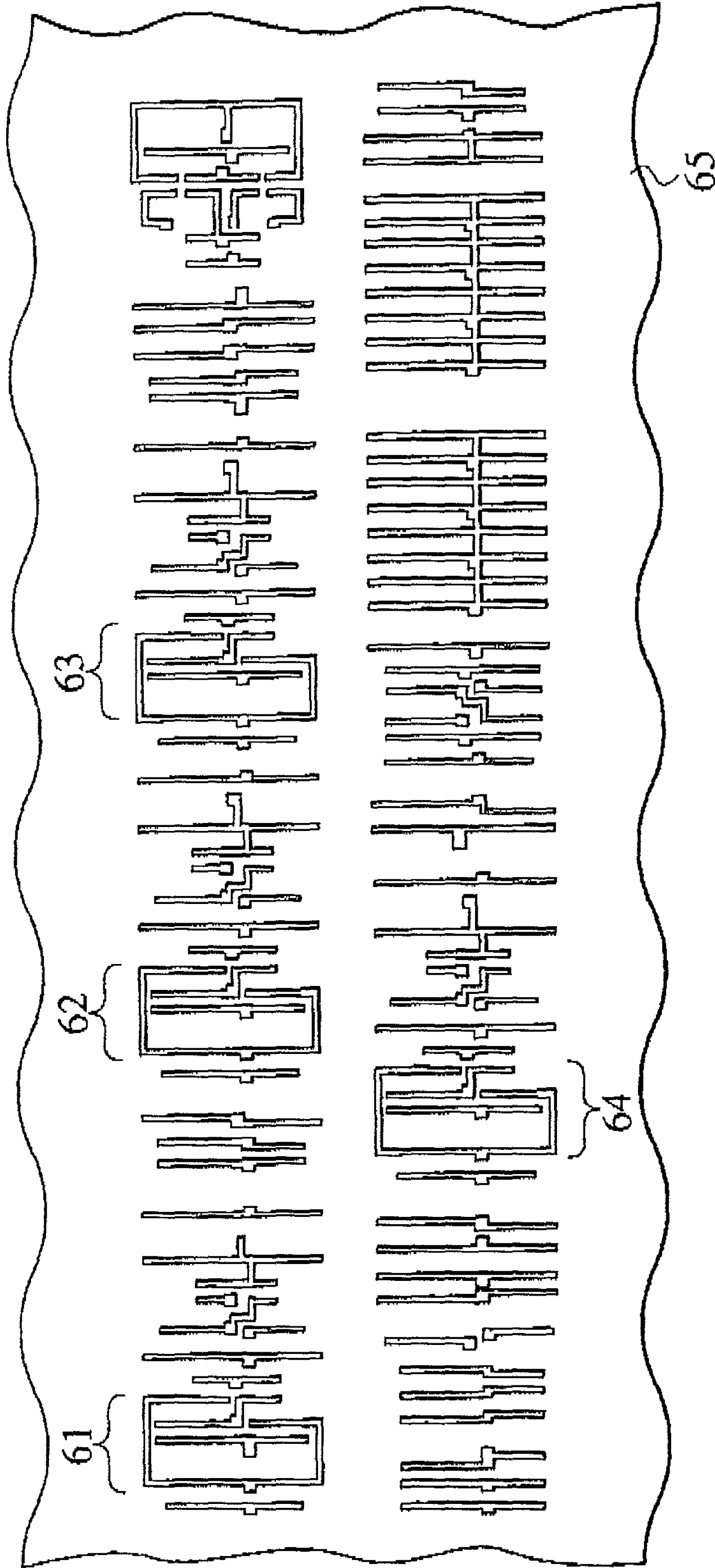
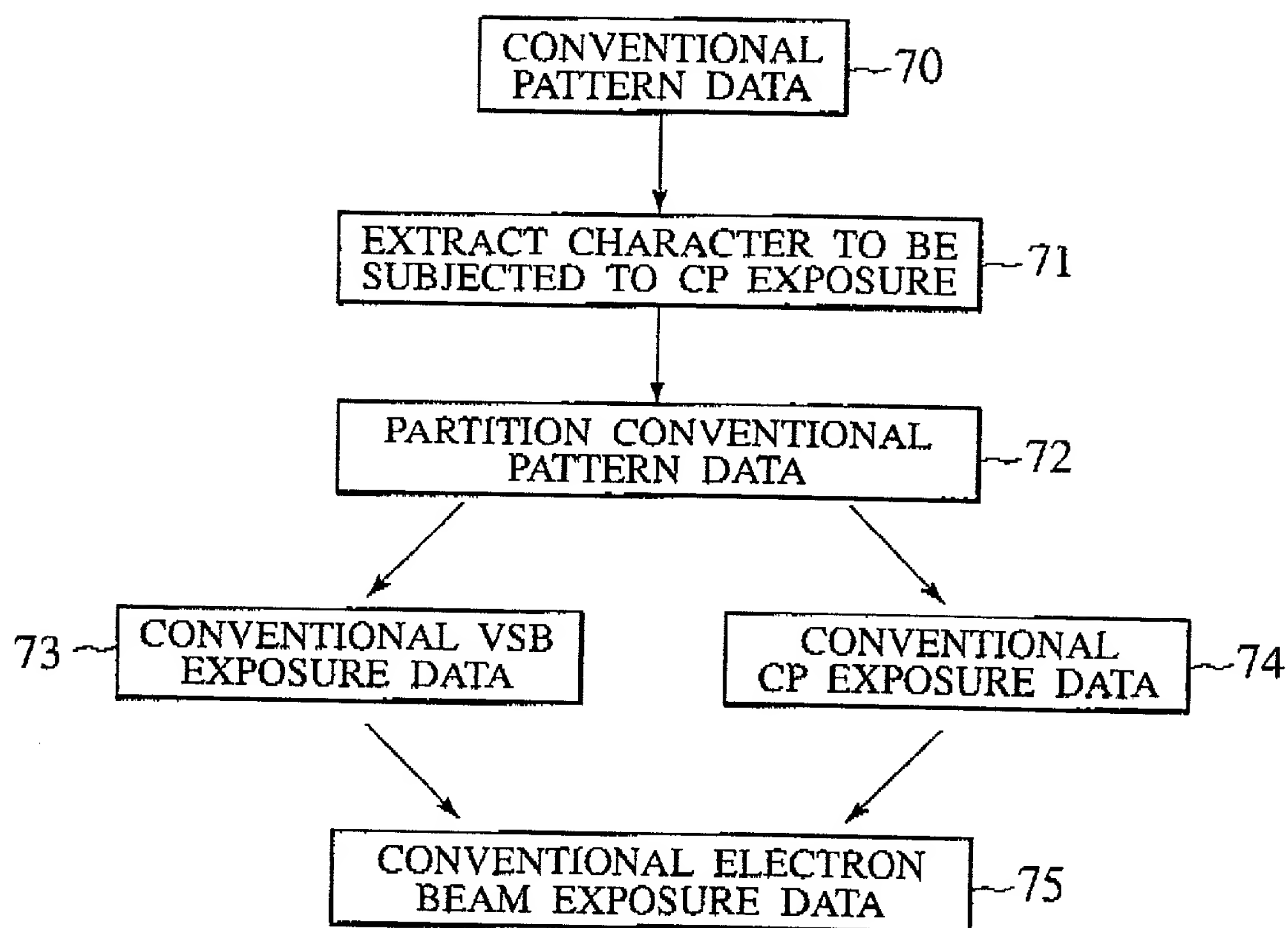


FIG. 5B

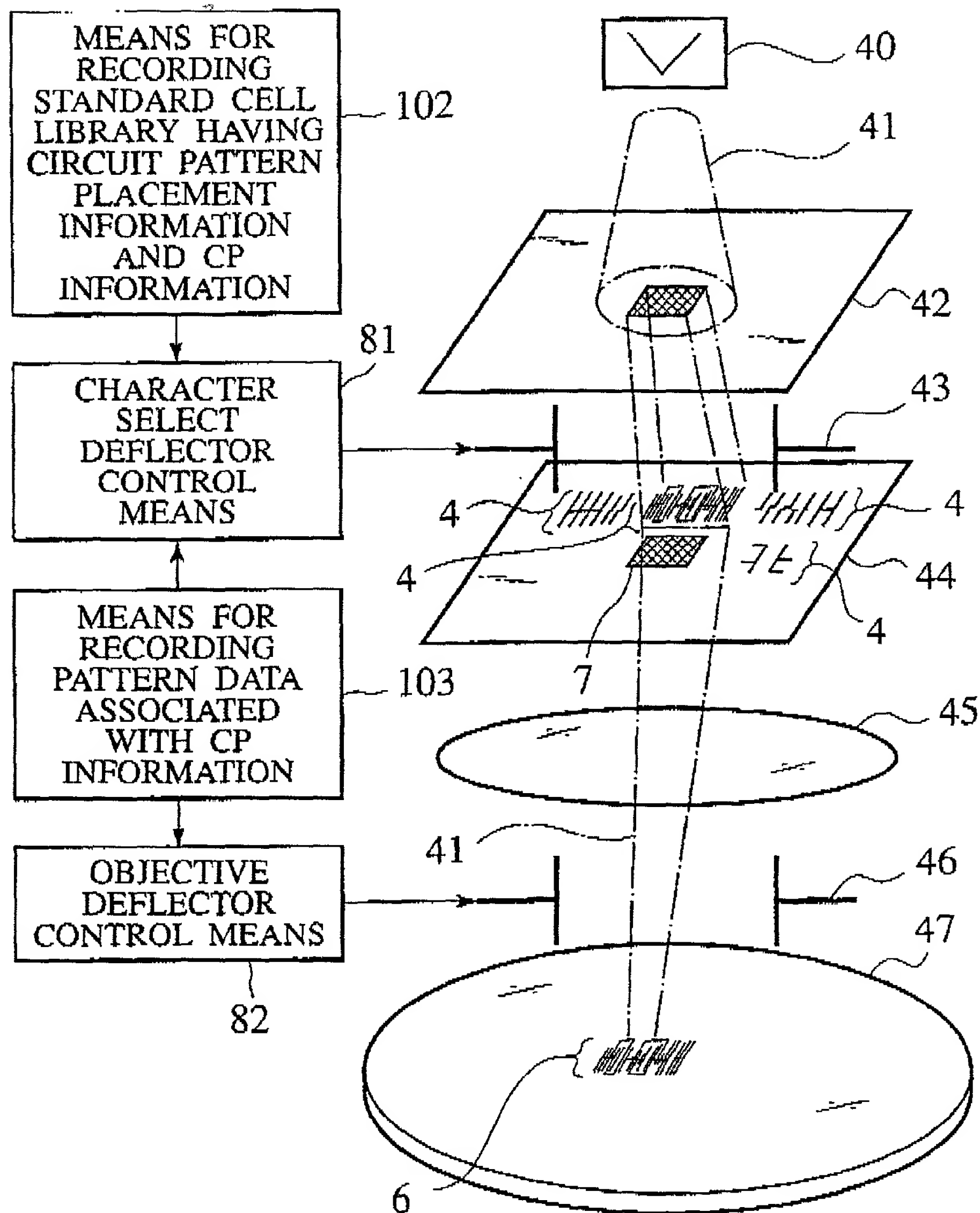
5/18

FIG. 6
PRIOR ART



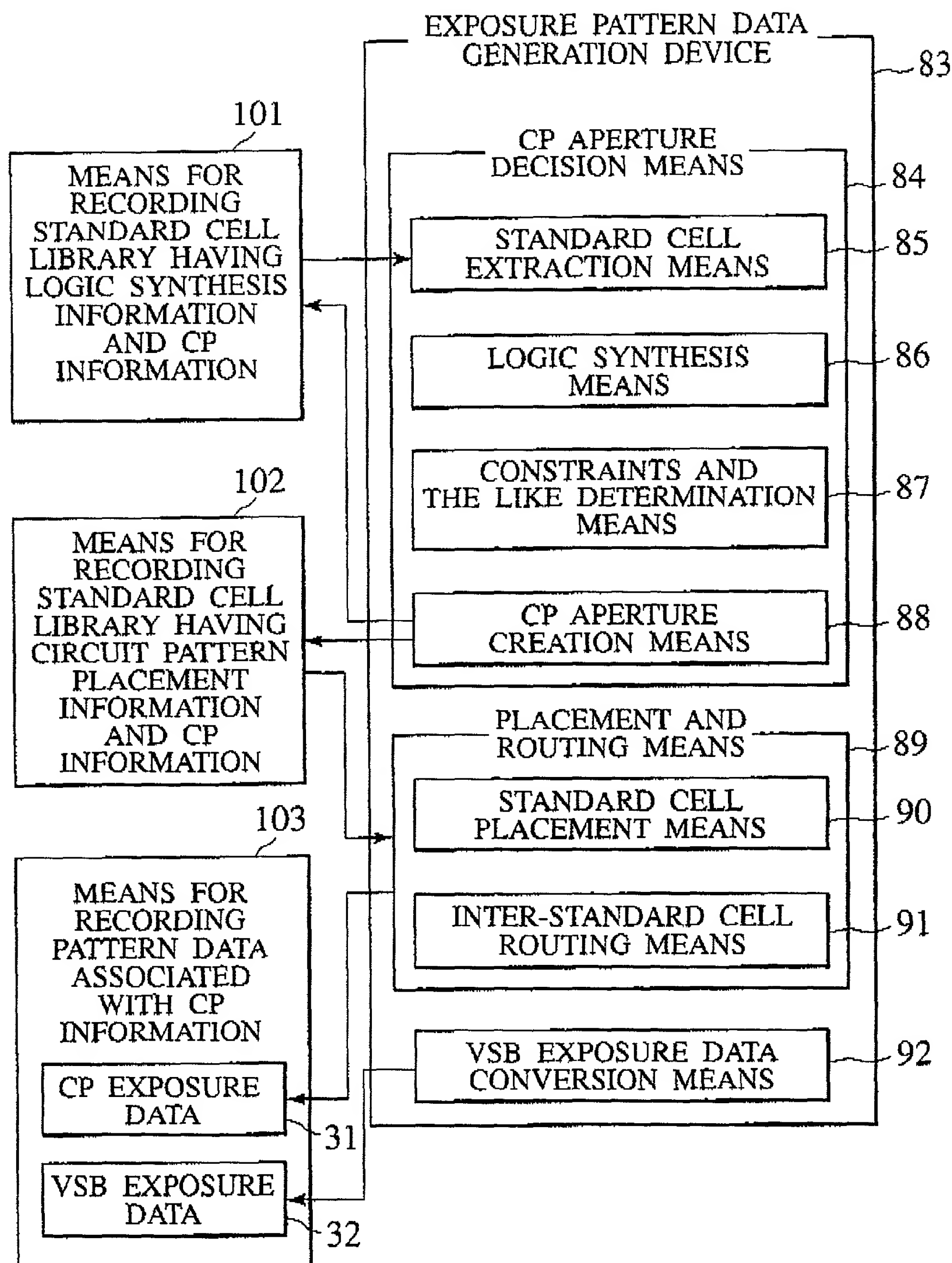
6/18

FIG. 7



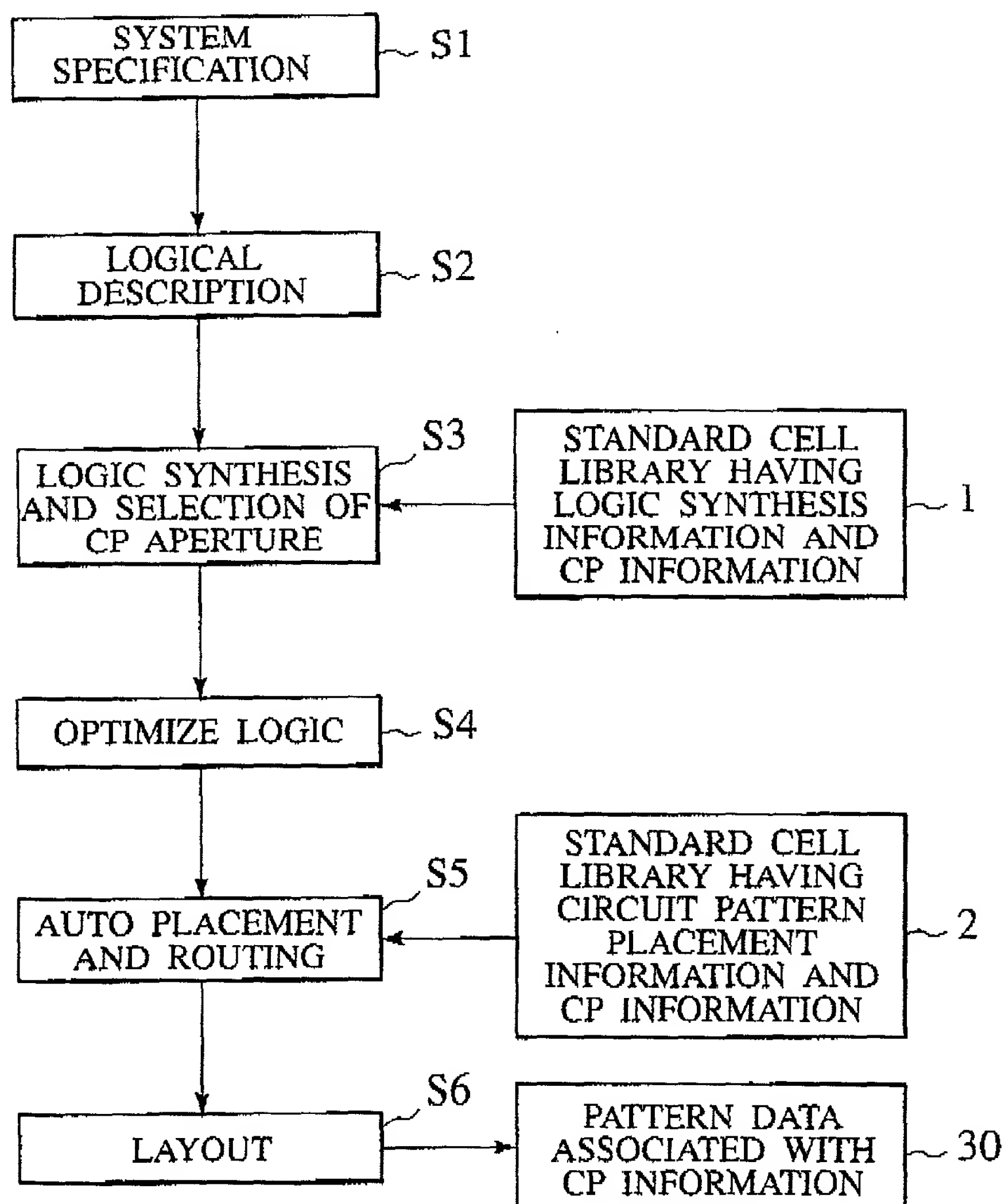
7/18

FIG. 8



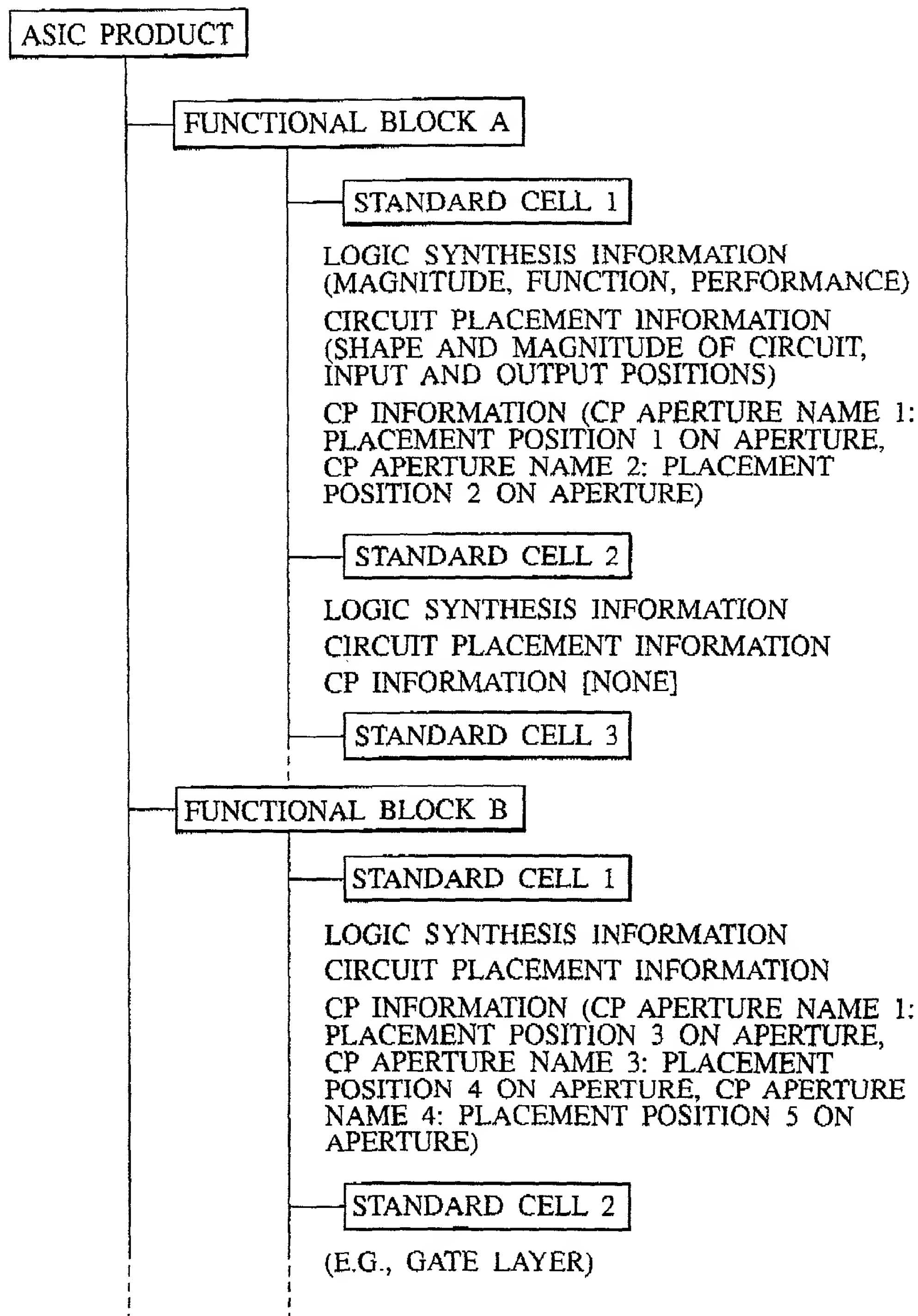
8/18

FIG. 9



9/18

FIG. 10



10/18

FIG. 11

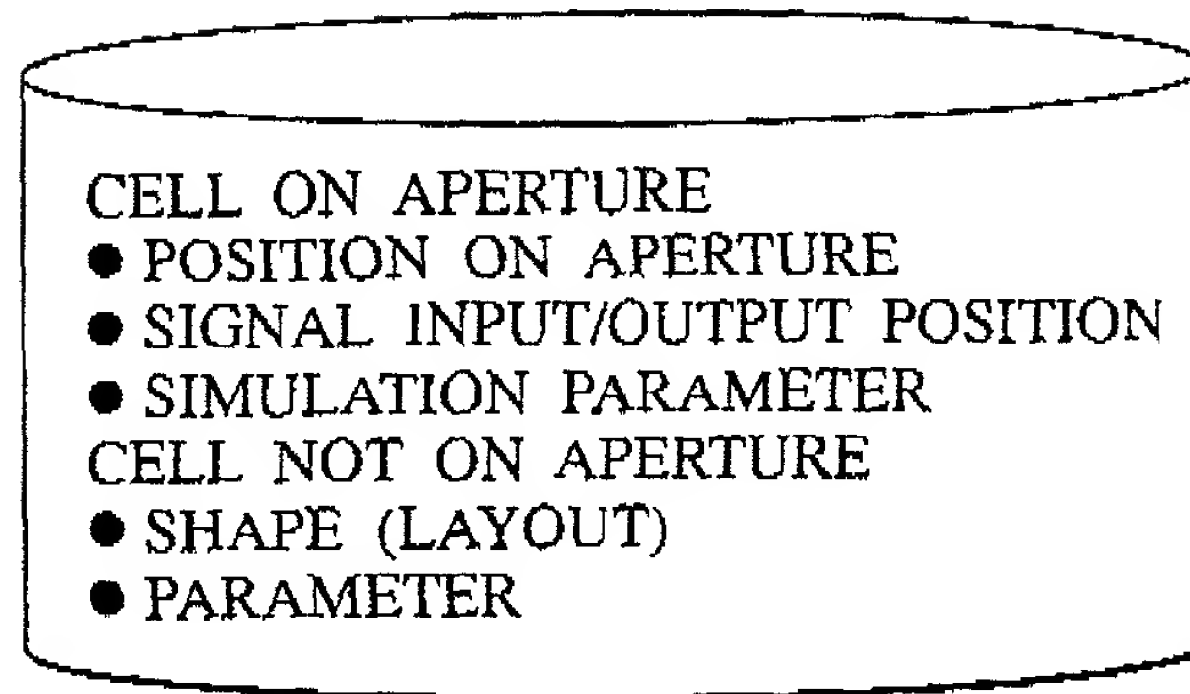
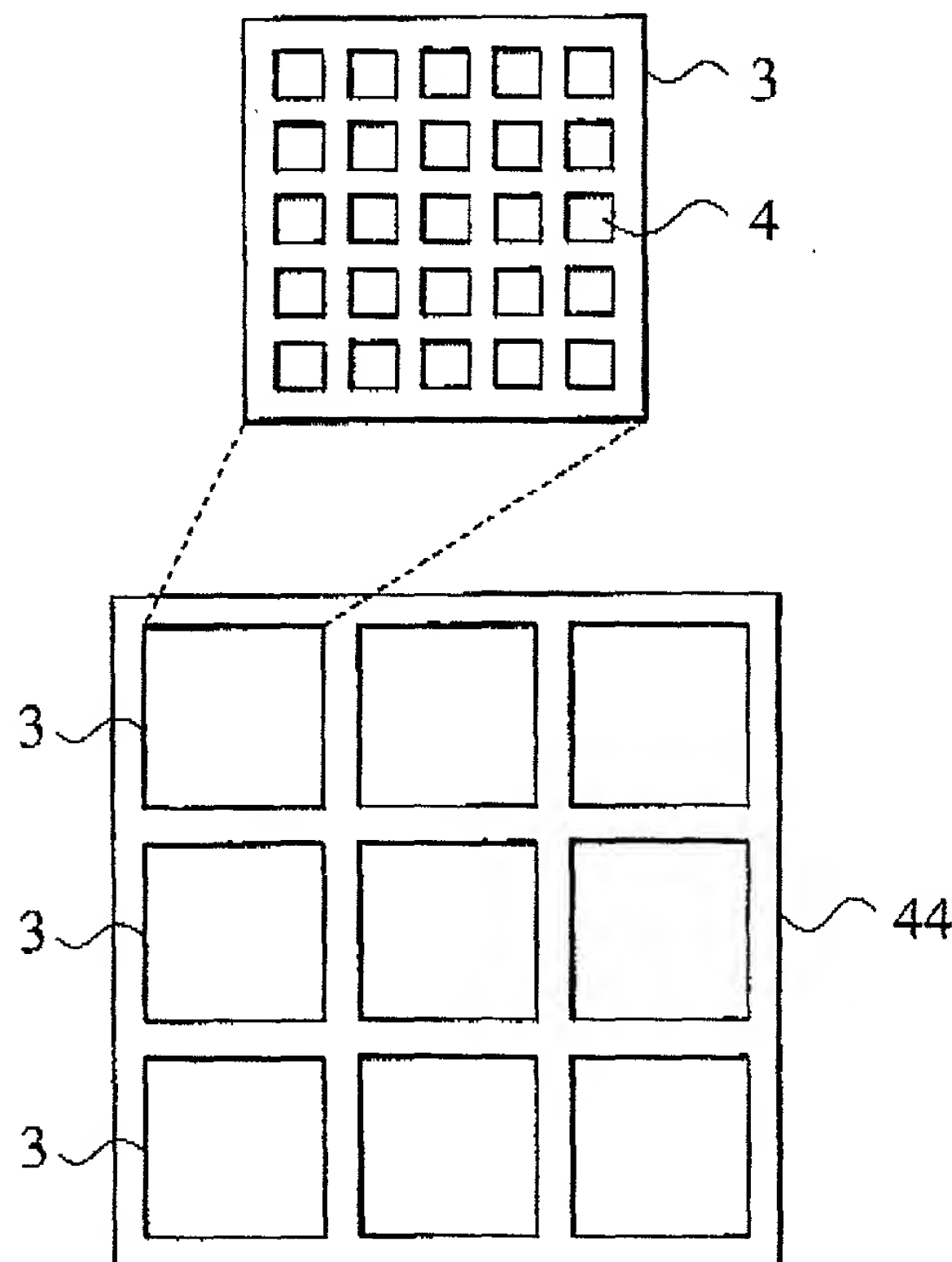
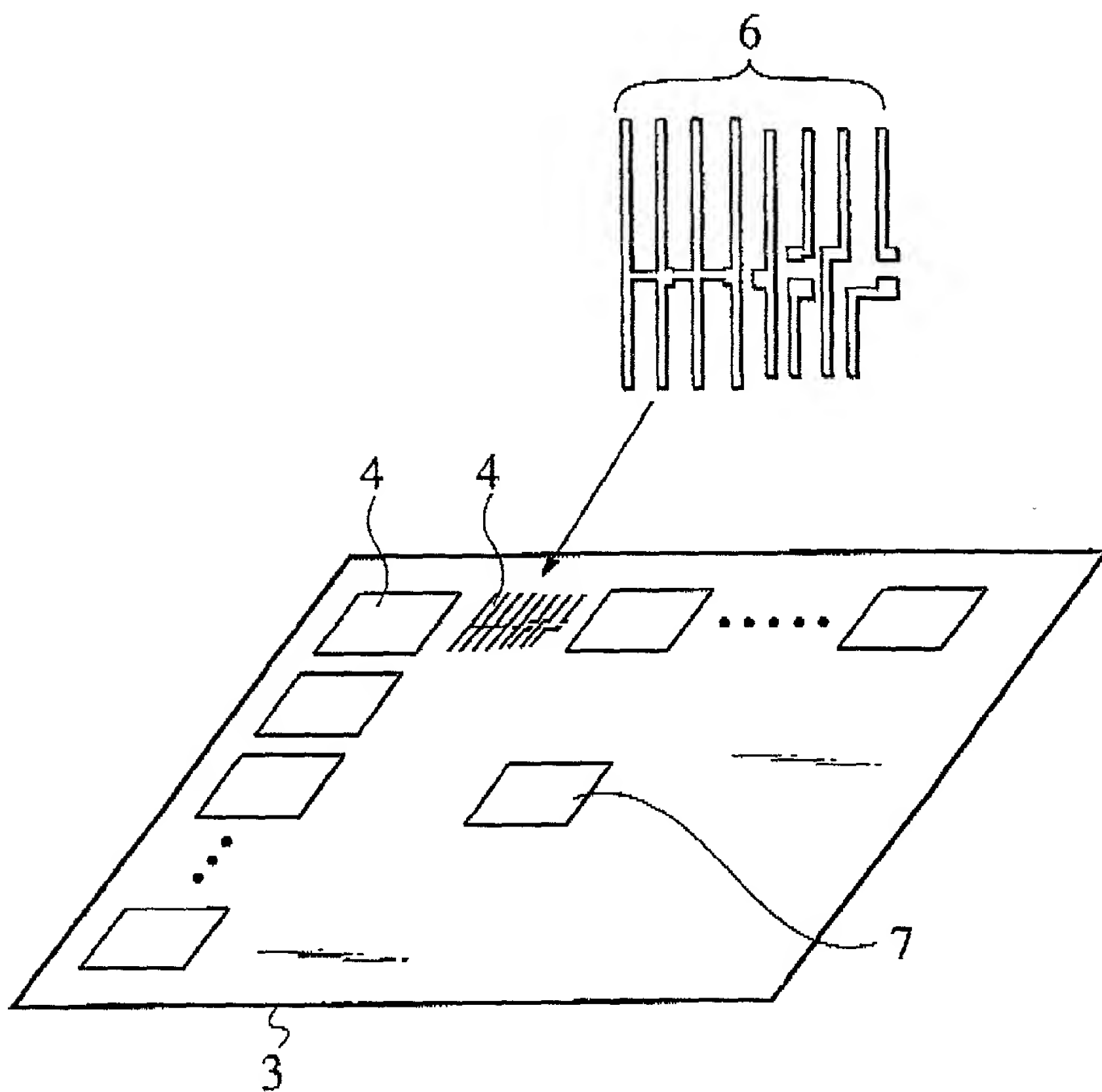


FIG. 12



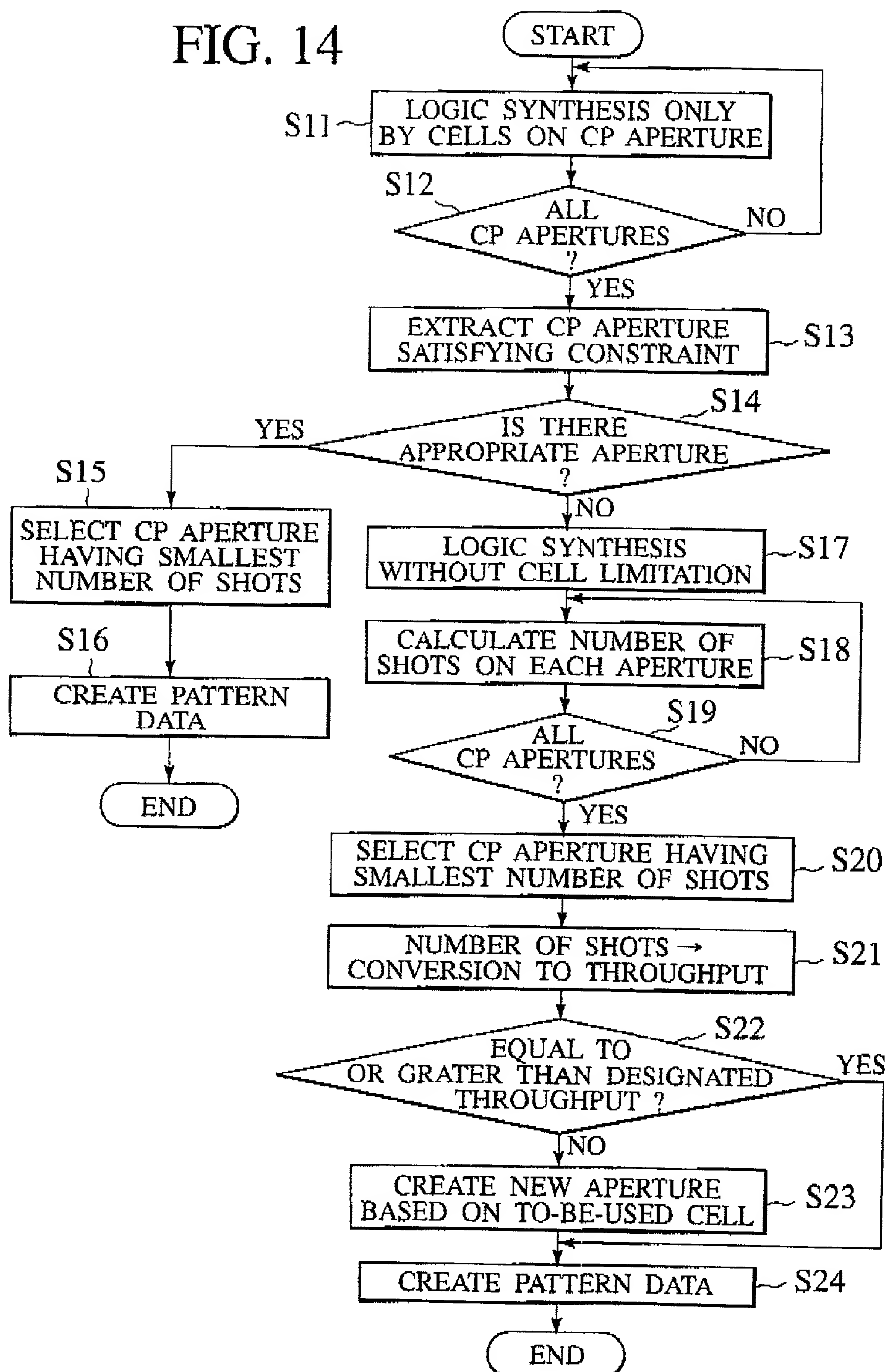
11/18

FIG. 13



12/18

FIG. 14



13/18

FIG. 15A

NO.	NAME	NUMBER OF TIMES OF PLACEMENT	VSB	CP	EFFECT
1	FD1Q	1860	86	2	78120
2	MX2	1616	48	1	75952
3	FD1	1524	82	2	60960
4	ND2I	2130	16	1	31950
5	NIVH	1214	25	1	29136
6	NIVU	1489	40	2	28291
7	AN2	1045	27	1	27170
8	NR2I	1174	22	1	24654
9	ND2	2167	11	1	21670
10	FD1QP	538	82	2	21520
11	EN	542	39	1	20596
12	ANR2	498	41	1	19920
13	NR2IP	473	43	1	19866
14	OND1P	407	49	1	19536
15	MX12	595	33	1	19040
16	OND3	704	27	1	18304
17	ND2P	629	30	1	18241
18	EO	371	44	1	15953
19	HDLY1B	372	39	1	14136
20	OND2P	227	63	1	14074
21	OND1	679	21	1	13580
22	IVU	409	32	1	12679
23	AN8P	286	88	2	12298
24	ANR2P	225	53	1	11700
25	AOR2	239	46	1	10755
26	NIV	1470	8	1	10290
27	AN3	393	26	1	9825
28	IV	3187	4	1	9561
29	ND2IP	253	34	1	8349
30	MX2G	123	63	1	7626
31	ENP	184	83	2	7452
32	IVH	457	17	1	7312
33	OR2	457	17	1	7312
34	AOR1	183	40	1	7137
35	FA1	189	69	2	6332
36	MX2P	106	60	1	6254
37	NR2	462	14	1	6006
38	OAN1	313	20	1	5947
39	NIVM	202	28	1	5454
40	FDN1P	119	93	2	5415
41	ANR1	230	24	1	5290

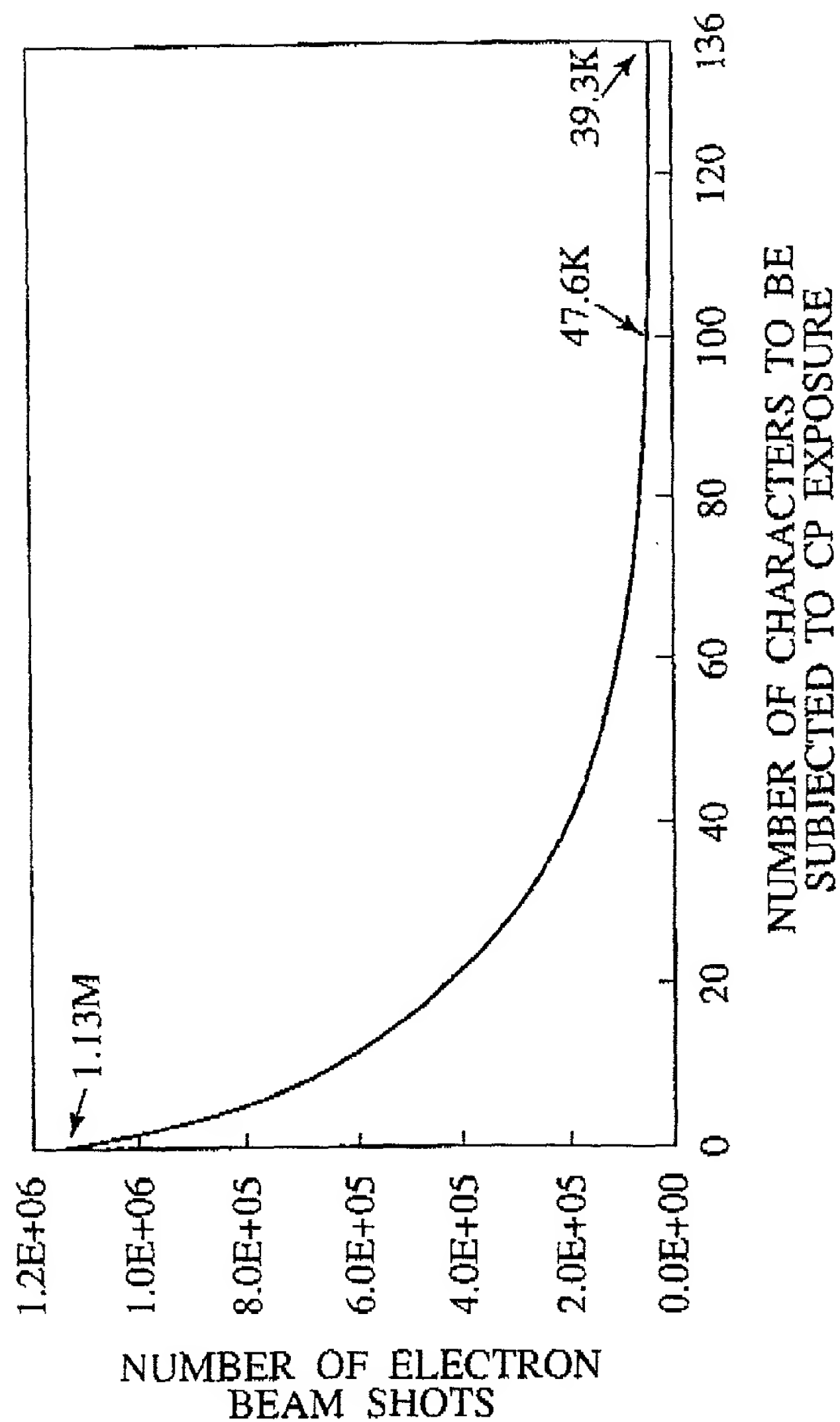
14/18

FIG. 15B

NO.	NAME	NUMBER OF TIMES OF PLACEMENT	VSB	CP	EFFECT
42	AN4	133	40	1	5187
43	ND3	221	23	1	4862
44	OND2	209	23	1	4598
45	ND4P	67	68	1	4489
46	ANR1P	119	37	1	4284
47	OND11P	63	69	1	4284
48	ND3P	85	49	1	4080
49	ANR3P	69	55	1	3726
50	OND3P	79	45	1	3476
51	FSR1	51	136	2	3417
52	FD1P	63	108	2	3339
53	NR2P	145	24	1	3335
54	NR3P	65	52	1	3315
55	HA1	87	39	1	3306
56	OND4C	78	38	1	2886
57	ND4	87	28	1	2349
58	OR2P	136	18	1	2312
59	OR3	78	30	1	2262
60	FD2Q	25	164	2	2025
61	MXI2P	35	56	1	1925
62	OR6	24	67	1	1584
63	ANR3	45	36	1	1575
64	OND11	49	32	1	1519
65	IVM	198	8	1	1386
66	IVML	111	13	1	1332
67	AOR1P	32	42	1	1312
68	AN6	23	58	1	1311
69	AN2P	58	23	1	1276
70	NR3	67	20	1	1273
71	HDLY2B	47	53	2	1199
72	ANR11P	15	66	1	975
73	FD2QP	22	131	3	939
74	AN8	27	70	2	918
75	IVD	80	12	1	880
76	NR4	32	28	1	864
77	FD4	14	115	2	791
78	OR3P	16	47	1	736
79	AN3P	27	28	1	729
80	IVDM1	34	22	1	714
81	OR4	19	38	1	703
82	IVDM	27	26	1	675
83	FD4Q	14	91	2	623

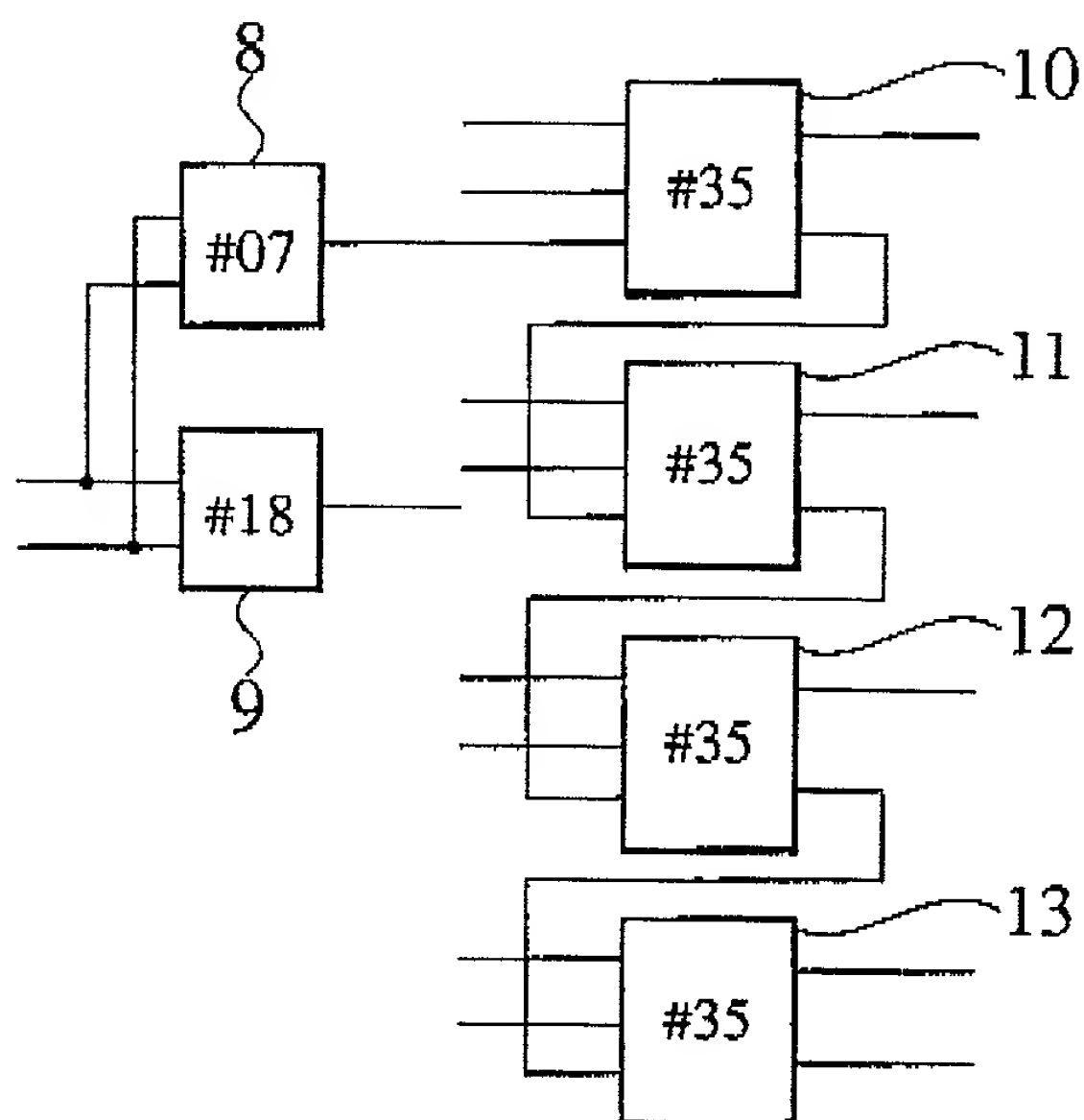
15/18

FIG. 16



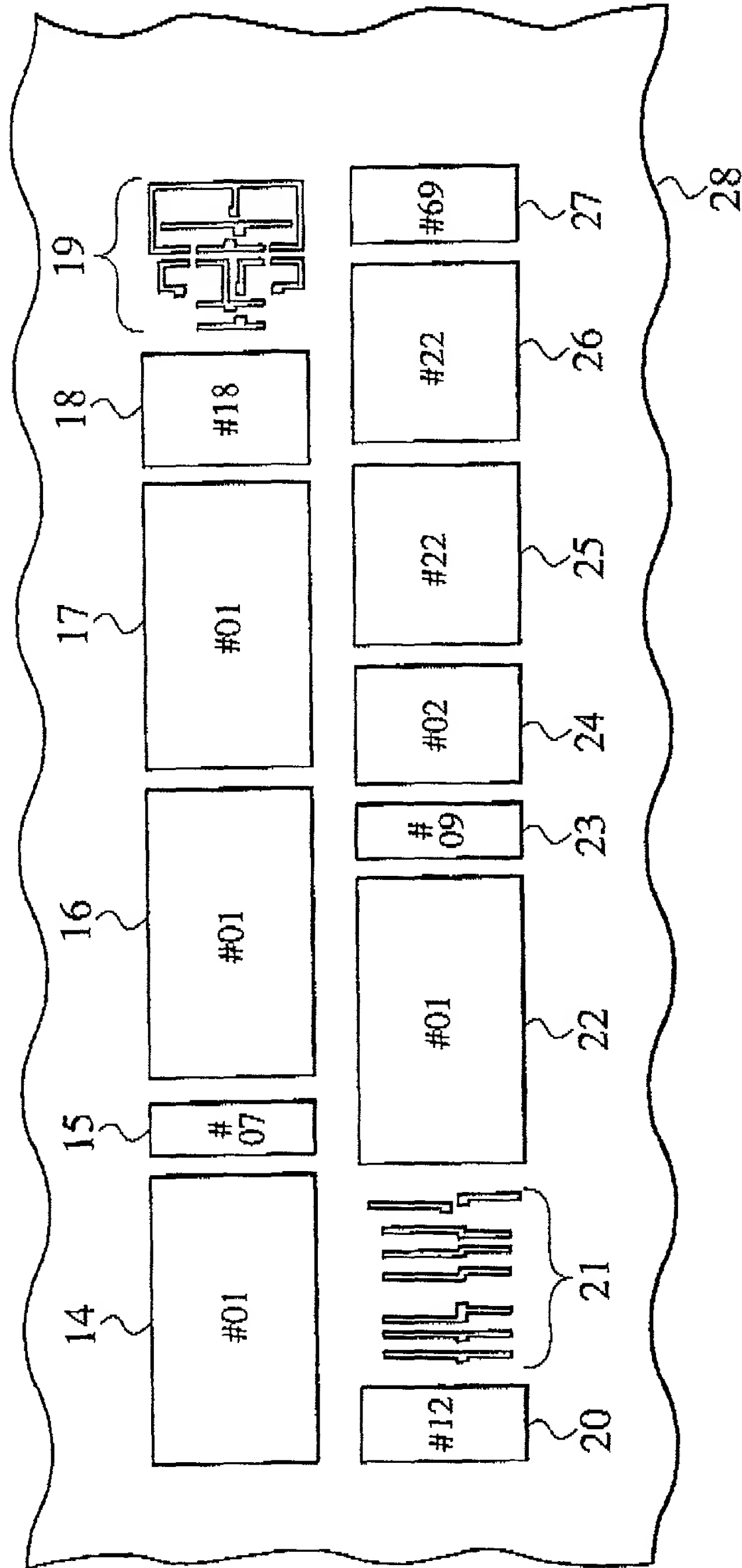
16/18

FIG. 17



17/18

FIG. 18



18/18

FIG. 19

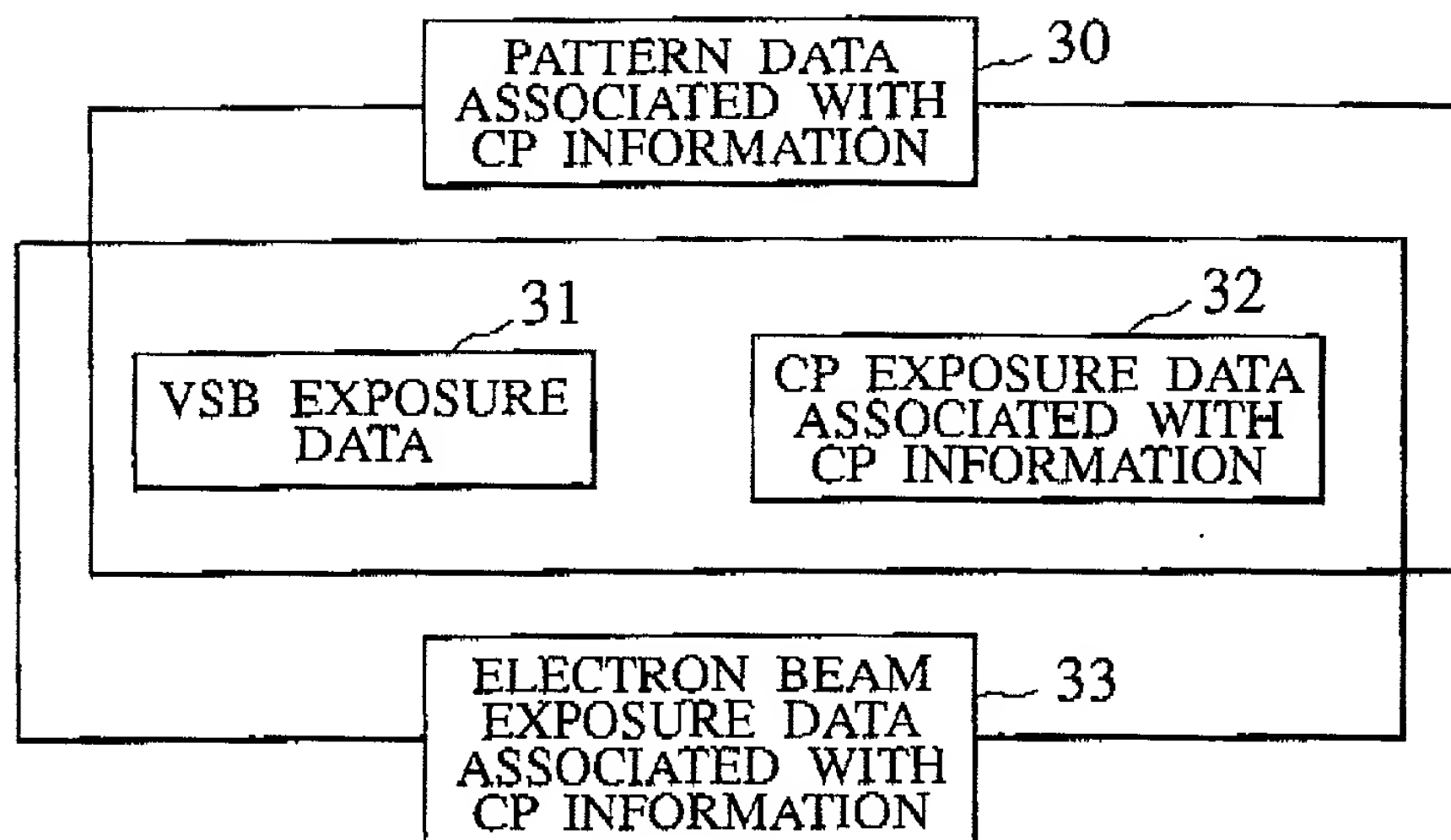


FIG. 20

SEMICONDUCTOR DEVICE TO BE MANUFACTURED	NUMBER OF ELECTRON BEAM SHOTS(/CHIP)			THROUGHPUT (WAFERS/h)	
	VSB EXPOSURE	CP APERTURE		CP APERTURE	
		DEVICE A	DEVICE B	DEVICE A	DEVICE B
DEVICE A	16.5M	1.28M	—	12.0	—
DEVICE B	12.1M	4.90M	1.35M	3.13	11.55